

INPUT STAGE APPARATUS AND METHOD HAVING A VARIABLE REFERENCE  
VOLTAGE

ABSTRACT OF THE DISCLOSURE

Input stage having increased input signal noise margin and method for generating an output signal having a predetermined logic level based on the voltage level of an input signal. The input stage includes an input buffer generating an output signal having a logic level based on the voltage of the input signal relative to the voltage of the reference voltage signal. A voltage generator provides a variable output voltage signal that is used as the reference voltage by the input buffer. The voltage of the output voltage signal provided by the voltage generator is dependent on the logic value of the output signal of the input buffer. In this manner, the reference voltage applied to the input buffer can be adjusted based on the logic level of the outputs signal in order to provide increased input signal noise margin.